

## 7. Claims

What is claimed is:

1. A radio communication apparatus being connectable to a radio communication relay unit, the apparatus comprising:

a connection terminal configured to connect the radio communication apparatus to the radio communication relay unit;

a first band pass filter configured to pass a first frequency band in a received radio frequency signal inputted from the connection terminal;

a second band pass filter configured to pass a second frequency band in a received radio frequency signal inputted from the connection terminal;

a first radio circuit configured to receive the radio frequency signal passed by the first band pass filter; and

a second radio circuit configured to receive the radio frequency signal passed by the second band pass filter.

2. The radio communication apparatus according to claim 1, wherein the first frequency band is for communicating with a radio communicating system and the second frequency band is for receiving a GPS signal from a GPS satellite.

3. The radio communication apparatus according to the claim 1, further comprising,

a first antenna configured to receive a radio frequency signal for communicating with a radio communicating system;

a second antenna configured to receive a radio frequency signal for receive a GPS signal from a GPS satellite.

4. The radio communication apparatus according to the claim 3, wherein the first radio circuit is capable to receive a plurality of radio frequency bands for communicating with a radio communicating system.

5. The radio communication apparatus according to the claim 4, wherein the radio communicating system adapts a method of time division multiple access.

6. The radio communication apparatus according to the claim 4, wherein the radio communicating system adapts a method of code division multiple access.

7. A radio communication apparatus having first and second antennas and being connectable to a radio communication relay unit, the apparatus comprising:

a connection terminal configured to connect the radio communication apparatus to the radio communication relay unit;

a first band pass filter configured to pass the first frequency band from a received radio frequency signal inputted from the connection terminal;

a second band pass filter configured to pass the second frequency band from a received radio frequency signal inputted from the connection terminal;

a first radio circuit configured to receive the radio frequency signal passed by the first band pass filter;

a second radio circuit configured to receive the radio frequency signal passed by the second band pass filter;

a controller configured to detect a connection with the radio communication relay unit;

a first switch configured to switch connecting the first band pass filter to the first antenna or the connection terminal on the base of the controller detecting; and

a second switch configured to switch connecting the second band pass filter to the second antenna or the connection terminal on the base of the controller detecting.

8. The radio communication apparatus according to claim 7, wherein the first band pass filter is connected to the connection terminal through the first switch in case that the controller detects a connection with the radio communication relay unit.

9. The radio communication apparatus according to claim 7, wherein the first band pass filter is connected to the first antenna through the first switch in case that the controller detects no connection with the radio communication relay unit.

10. The radio communication apparatus according to claim 7, wherein the second band pass filter is connected to the connection terminal through the second switch in case that the controller detects a connection with the radio communication relay unit.

11. The radio communication apparatus according to claim 7, wherein the second band pass filter is connected to second antenna through the second switch in case that the controller detects no connection with the radio communication relay unit.

12. The radio communication apparatus according to claim 7, wherein the first frequency band is for communicating with a radio communicating system and the second frequency band is for receiving a GPS signal from a GPS satellite.

13. The radio communication apparatus according to the claim 12, wherein the first radio circuit is capable to receive a plurality of radio frequency bands for communicating with a radio communicating system.

14. The radio communication apparatus according to the claim 13, wherein the radio communicating system adapts a method of time division multiple access.

15. The radio communication apparatus according to the claim 13, wherein the radio communicating system adapts a method of code division multiple access.

16. The radio communication apparatus according to claim 7, further comprising;  
a display unit configured to display information;

wherein the display unit displays a message to inform that the controller detects the connection with radio communication relay unit.

17. The radio communication apparatus according to claim 7, further comprising;

a display unit configured to display information;

wherein the display unit displays a message to confirm that the controller detects the connection with radio communication relay unit.

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